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Library and Information Services

# Journal club checklist

This checklist provides an outline that you can use to guide your discussion of any article in your journal club. Further advise and tools to use when critically appraising papers can be found in the [EBVM Resources page.](https://knowledge.rcvs.org.uk/evidence-based-veterinary-medicine/ebvm-resources/tools-guidelines-and-checklists/)

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| **Title** | **Incidence and type of peripheral intravenous catheter complications documented in hospitalised dogs. *Journal of Small Animal Practice*.** |
| **What are the aims or objectives of the study?**  A clearly stated aim or objective will make it easier for you to assess whether the research has been appropriately designed to meet these aims. | The aims of this study were to report the incidence and type of Peripheral Intravenous Catheter (PIVC) complications in dogs hospitalised in the Intermediate Care Unit (IMCU) and the Critical Care Unit (CCU) at a single veterinary teaching hospital in the United States. |
| **Where was the research carried out?**  Do the researchers have appropriate knowledge or supervision to carry out the research? | The research was carried out the Department of Clinical Sciences, College of Veterinary Medicine and Biomedical Sciences, Colorado State University.  What impact might this have on the results? |
| **Is there a specific research question or hypothesis?** | The authors hypothesise that the incidence of PIVC complications in dogs will be approximately 20%, and the type of complication most frequently reported will be different in the CCU and the IMCU. |
| **Why do you want to review this paper?**  Identifying you reason for reading a paper can help you get the most out of it. | There are a number of different reasons you may want to review the paper, including dealing with an identified issue in practice or developing a protocol or guideline for use in practice.  In this guide we will look at how you could use this paper to develop a clinical audit on peripheral intravenous catheter complication for your own practice. |
| **What methods did the researchers use?**  **Is this methodology appropriate to the objectives or question?** | This was a prospective, observational study.  More detailed guidance on how to critically appraise different types of study can be found in the [EBVM Toolkit Section 3](https://knowledge.rcvs.org.uk/evidence-based-veterinary-medicine/ebvm-toolkit/) |
| **Is the study design described clearly enough to enable you to follow what was done?** | Which dogs were included in the study and which dogs were excluded from the study?  In this study dogs that were witnessed chewing and removing their PIVCs were not included.  If you were auditing PIVC complications in your practice, which patients would you include or exclude? |
| **How many patients or participants were included in the study?** | 396 dogs had a total of 412 PIVCs placed during their hospitalisation, including 252 in the CCU and 160 in the IMCU. |
| **Are the type of patients or participants clearly described?** | Are these patients or participants relevant to your practice, if not what differences need to be considered? |
| **What differences were there between patients in IMCU an CCU and how might this impact the results?** |  |
| **Is the data collected clearly described?** | If you were collecting data for a clinical audit in your practice, what data would you collect and how would you record it? |
| **How were complications classified?** | Would it be feasible to use this system in your practice or would you choose to change anything? |
| **What factors could affect the accuracy of the data collected?** |  |
| **What are the important findings of the study?** | The main findings relating to the number and types of PIVC complications are presented in tables 1 & 2.  Phlebitis was the most common peripheral intravenous catheter complication in the Critical Care Unit, and line breakage was the most common complication in the Intermediate Care Unit. What do you think could be the reasons for this difference? |
| **Do the results answer the research questions?** |  |
| **What are the limitations of the study?** | Some of the limitations you might consider, relate to variations in the level of experience of those placing the catheters.  Possible variation in identifying and recording complications.  The exclusion of dogs chewing or removing their catheters as a complication |
| **How do these findings relate to your own experience in practice?** |  |
| **What measures could be put in place to reduce PIVC in your practice?** |  |
| **How could you use this paper as the basis for a clinical audit of PIVCs in your own practice?** |  |
| **Having read the paper are there any other sources of information or resources you need to access before carrying out a clinical audit of PIVCs in your practice?** |  |